

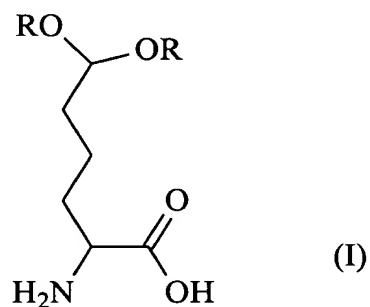
IN THE CLAIMS

Please cancel Claims 9 and 11 without prejudice.

Please amend the claims as follows.

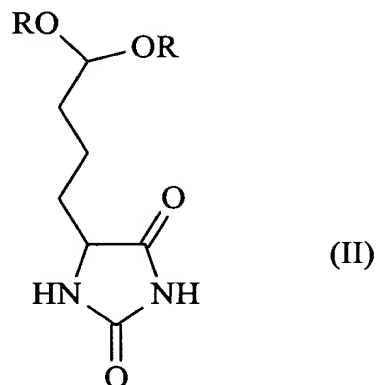
--1. (Amended) A process for the preparation of allysine acetal of the general formula

(I)



comprising:

contacting a hydantoin of the general formula (II):



wherein in formulae (I) and (II) R represents (C<sub>1</sub>-C<sub>8</sub>)-alkyl, (C<sub>2</sub>-C<sub>4</sub>)-alkylene, (C<sub>6</sub>-C<sub>18</sub>)-aryl, (C<sub>7</sub>-C<sub>19</sub>)- aralkyl, or (C<sub>1</sub>-C<sub>8</sub>)-acyl,

with a hydantoinase and a D- or L-specific carbamoylase in the presence of at least one racemase selected from the group consisting of a hydantoin racemase and carbamoyl racemase,

under conditions suitable for *in situ* racemisation of the hydantoin or of an N-carbamoyl amino acid.

A<sup>2</sup>

2. (Amended) The process of Claim 1, wherein at least one of the hydantoinase, a D- or L-specific carbamoylase, or the at least one racemase is in at least one form selected from the group consisting of free form, immobilized form, cell fraction form, cell extract form, and in a form enclosed in a cell.

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4. (Amended) The process according to Claim 1, wherein the hydantoin racemase, the hydantoinase, and the L- or D- specific carbamoylase are present in a total cell catalyst.

A<sup>3</sup>

5. (Amended) The process according to Claim 4, wherein the total cell catalyst comprises an L-specific carbamoylase.

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7. (Amended) The process according to Claim 6, wherein the recombinant bacterium is *Escherichia coli*.

A<sup>4</sup>

8. (Amended) The process according to Claim 1 wherein the contacting is carried out in an enzyme-membrane reactor.

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AS 10. (Amended) The process according to Claim 1, wherein the contacting is performed in the presence of a metal salt.--

Please add the following claims.

--12. (New) The process of Claim 4, further comprising developing the total cell catalyst from at least one cell that comprises at least one cloned gene coding for at least one member selected from the group consisting of a hydantoin racemase, hydantoinase, L-specific carbamoylase, and D-specific carbamoylase.

A6 13. (New) The process of Claim 4, wherein the total cell catalyst is at least one member selected from the group consisting of *Escherichia coli* JM109, *Escherichia coli* NM 522, *Escherichia coli* JM105, *Escherichia coli* RR1, *Escherichia coli* DH5α, *Escherichia coli* TOP 10, and *Escherichia coli* HB101.

14. (New) A method for producing a pharmaceutical or a biologically active product, comprising contacting the allysine acetal of the general formula (I) produced by the process of Claim 1 with a pharmaceutically-acceptable or a biologically-acceptable ingredient, excipient, or carrier.

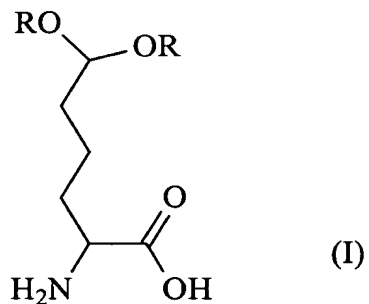
15. (New) The process of Claim 1, wherein the contacting is performed so that the allysine acetal of the general formula (I) is produced at an optical purity of at least 90%.

16. (New) The process of Claim 1, wherein the contacting is performed so that the allysine acetal of the general formula (I) is produced at a yield of at least 85%.

17. (New) The process according to Claim 1, wherein the contacting is performed at a pH of from 5.5 to 8.5.

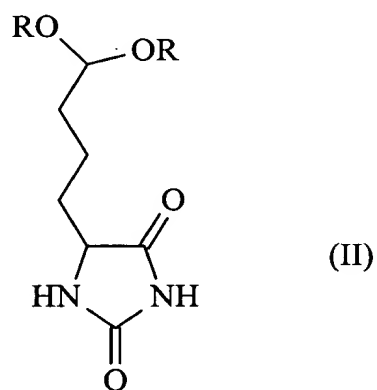
18. (New) The process according to Claim 1, wherein the contacting is performed at a temperature of from 20 to 40 °C.

19. (New) A process for the preparation of allysine acetal of the general formula (I)



comprising:

contacting a hydantoin of the general formula (II):



wherein in formulae (I) and (II) R represents (C<sub>1</sub>-C<sub>8</sub>)-alkyl, (C<sub>2</sub>-C<sub>4</sub>)-alkylene, (C<sub>6</sub>-C<sub>18</sub>)-aryl, (C<sub>7</sub>-C<sub>19</sub>)- aralkyl, or (C<sub>1</sub>-C<sub>8</sub>)-acyl,